Project Management : The Challenge, the dilemma

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Introduction

Project management best practices have been captured, explained and evangelized for more than 20 years. The first formalized methodology came in 1987 through the Project Management Institute (PMI), with its Project Management Book of Knowledge (PMBOK). Today, PMBOK is still the broadest and deepest reference of generally accepted best practices, arranged around key processes that are leveraged across market segments and departments.

Many bodies of knowledge and frameworks (e.g., International Project Management Association (IPMA, 2006); Office of Government Commerce [OGC], 2007; Project Management Institute (PMI, 2008) support project management in practice. The most popular body of knowledge worldwide is that described in A guide to the project management body of knowledge (PMBOK Guide)-Fourth Edition (PMI, 2008), which identifies nine knowledge Areas that the project manager should focus on during the project life (PMI, 2008).

Overview of Project Management

Project Management is the business process of creating a unique product, service or result. A project is a finite endeavor having specific start and completion dates undertaken to create a quantifiable deliverable. Projects under go progressive elaboration by developing in steps and predictable increments that are tied to benchmarks, milestones and completion dates. T he primary challenge of project management is to achieve all of the goals of the project charter while adhering to three out of the four classic project constraints some time referred to as the "triple constraints" The four constraints are defined as scope, time, cost and quality. The more ambitious goal of project management is to carry the project through the entire project management life cycle. The project management life cycle consists of five phases called Project Management Knowledge Areas: Project Initiation, Project Planning, Project Executing, Project monitoring and controlling and project closing.

The Project Management Body of Knowledge (PMBOK)

The Project Management Body of Knowledge (PMBOK®) is an internationally recognized standard (IEEE, ANSI) that deals with the application of knowledge, skills, tools, and techniques to meet project requirements. It is generally accepted as best practice within the project management discipline.

The PMBOK Guide defines a Project Life Cycle, 5 Process Groups and 9 Knowledge areas of the project management profession. It provides the fundamentals of project management, irrespective of the type of project be it construction, software, engineering, automotive etc.

Origin of PMBOK

The Project Management Institute (PMI) was founded in 1969, initially to identify common management practices in projects across industries. The first edition of the PMBOK was published in 1987. It was the result of workshops initiated in the early 80s by the PMI. Later, a second version of the PMBOK was published 1996, based on comments received from the members. The third version of the PMBOK Guide was published in 2004, with major improvements in the structure of the document, additions to processes, terms and domains of program and portfolio. The fourth edition was published in 2008 with the main change from the triple constraints to sixth constraints.

Knowledge Area

A project team operates in 9 knowledge areas through a number of basic processes is summarized below:

1. Project Integration management. Develop the Project Charter, Scope Statement and Plan. Direct, Manage, Monitor and Control Project Change.

2. Project Scope management : Planning, Definition, Work Break-down Structure (WBS) Creation, Verification and Control.

3. Project time management : Definition, Sequencing, Resource and Duration Estimating, Schedule Development and Schedule Control.

4. Project cost management : Resource Planning, Cost Estimating, Budgeting and Control.

5. Project Quality management: Quality Planning, Quality Assurance and Quality Control.

6. Project Human Resources management: HR Planning, Hiring, Developing and Managing Project Team.

7. Project Communications management: Communications Planning, Information Distribution, Performance Reporting, Managing Stakeholders.

8. Project Risks management: Risk Planning and Identification, Risk Analysis (Qualitative and Quantitative), Risk Response (Action) Planning and Risk Monitoring and Control.

9. Project Procurement management: Acquisition and Contracting Plan, Sellers Responses and Selection, Contract Administration and Contract Closure.

PMBOK Process

A Project is accomplished through the integration of the project management processes. For each process, activity, or practice, a description of input, tools and technique and output (deliverables) is available.

PMBOK uses a variation of the Deming Cycle for continuous improvement with a 5 -step lifecycle:

1. Initiating - Setting up the project for success by identifying the right team and scope, as well as determining the relationship between the project and its alignment with the organization's overall charter. The main elements include:

- Authorize the project
- Commit the organization to a project or phase
- Set the overall direction
- Define top-level project objectives
- Secure necessary approvals and resources
- Validate alignment with overall business objectives
- Assign project manager

2. Planning - Developing the relevant resources, timelines and milestones, and mapping project delivery to business priorities (i.e. risk management, communications, quality, cost/budgeting, duration and sequencing, external dependencies). The main elements are:

- Define project scope
- Refine project objectives
- Define all required deliverables
- Create framework for project schedule
- Provide forum for information sharing for team members and stakeholders
- Define all required activities
- Sequence all activities
- Identify required skills and resources
- Estimate work effort
- Risk analysis and avoidance
- Define and estimate all required costs
- Obtain project funding approval
- Communication plan

3. Executing - Assigning the project team and distributing information to ensure the proper activities are undertaken. This process also includes ensuring quality assurance methods are in place to address change management, organizational updates, possible changes to the plan, etc. the main elements are:

- Coordinate the resources, team development
- Quality assurance
- Select and approach subcontractors
- Distribute information
- Work the plan

4. Controlling and Monitoring - Ensuring the resulting product maps back to the original plan, and risk from uncontrolled external actions is mitigated. CA Clarity PPM can have a significant impact by setting up a secure infrastructure to:

- Monitor quality, costs and schedule;
- Manage stakeholder relationships, risk and contract monitoring;
- Identify discrepancies (or variations) within the project schedule; and
- Provide the PMO more control.

The Main elements are :

- Manage team, stakeholders, subcontractors
- Measuring progress and monitoring performance (overall, scope, schedule, costs, quality)
- Take corrective actions if and where needed. Issue resolution and escalation
- Change request management
- Risk Management (technical, quality, performance, project management, organizational, external)
- Performance reports. Communications

5. Closing - Making sure you have delivered everything expected of the project. Once you close, you need to review the project vis-à-vis the plan and likewise ensure contract closure. The main elements are :

- Finalize activities
- Administrative close out (gather, distribute, archive information to formalize project completion, acceptance/signoff, evaluation, member appraisals, lessons learned)

The Project Manager is responsible for the project objectives to deliver the final product that has been defined, within the constraints of project scope, time, cost and required quality.

Strengths and Benefits of PMBOK

PMBOK guide is a framework and de facto standard. It is process-oriented that states the knowledge needed to manage the life cycle of any Project, Program and Portfolio is through their processes. It defines for each process the necessary input, tools, techniques and output (deliverables). In addition it defines a body of knowledge on which any industry can build it specific best practices for its application area.

PMBOK Success and Failures

T. Williams (2005) criticizes the use of project management bodies of knowledge, which he finds inappropriate for complex, uncertain, and time-limited projects. However, most scholars believe that implementing a body of knowledge increases the chance of project success. However, some criticism related to the PMBOK Guide included lack of covered scope of the nine knowledge Areas, missing issues (e.g., technology and design),

environmental issues, and business and commercial issues (Morris, 2001).

PMI provides the top ten changes to the PMI Project Management Body of Knowledge (PMBOK®) for the fourth edition and number nine of the top ten changes is changing the triple constraint to six constraints. The three new additional constraints are quality, resources and risk. The new constraints may be considered as subsets or aspects of the original three. If you add an additional three, why not more? What about issues? What about customer perception? Political ramifications? etc.

The PMBOK® may be is out of control always changing things… hoping to make it better… when in fact they have seem to add complexity with little or no additional value. As Voltaire stated "The perfect is the enemy of the good."

Project Management is nothing but structured organized common sense!

Here is the problem…if you try to document every single common sense thing and every factor or process that contributes to the successful execution of common sense the result is gobbledygook! The real challenge in project management is not identifying the common sense things to do, but having the individual or organizational discipline to do the common sense thing.

It is worth noting that most of humankind's greatest project management achievements happened before the PMBOK® existed. The principles of successful project management are timeless and if you know them and use them you will be successful regardless of whether the PMBOK® chooses to include it or what the PMBOK® chooses to call it.

The Misinterpretations of PMBOK

Unfortunately, most project managers often have limited time to perform all that is requires by the PMBOK Guide. Therefore, project managers may choose to perform only those processes that they are most familiar with or that are easier to perform. In doing so, they may give lower priority to knowledge Areas that have higher impact on project success.

Most of the ragging about PMBOK starts with the misinterpretation of the purpose and content of A Guide to the Project Management Body of Knowledge. First it is not "The" Body of Knowledge, but "A" Body of Knowledge. Second it is not "The" Body of Knowledge, but a "Guide" to "A" Body of Knowledge.

Next comes the concept that PMBOK is a project management methodology. That is, it tells you how to manage a project. This is not true. PMBOK is a guide to some good practices that should be found in your project management method.

How to maximize success

One of the vaguest concepts of project management is project success. Since each individual or group of people who are involved in a project have different needs and expectations, it is very unsurprising that they interpret project success in their own way of understanding (Cleland & Ireland, 2004). "For those involved with a project, project success is normally thought of as the achievement of some pre-determined project goals" (Lim & Mohamed, 1999) while the general public has different views, commonly based on user satisfaction. A classic example of different perspective of successful project is the Sydney Opera House project (Thomsett, 2002), which went 16 times over budget and took 4 times more to finish than originally planned. But the final impact that the Opera House created was so big that no one remembers the original missed goals. The project was a big success for the people and at the same time a big failure from the project management perspective. On the other hand, the Millennium Dome in London was a project on time and on budget but in the eyes of the British people was considered a failure because it didn't deliver the awe and glamour that it was supposed to generate (Cammack, 2005). "In the same way that quality requires both conformance to the specifications and fitness for use, project success requires a combination of product success (service, result, or outcome) and project management success" (Duncan, 2004).

Kerzner (2001) suggests three criteria from the organization perspective in order for a project to be successful. The first is that it must be completed "with minimum or mutually agreed upon scope changes", even though stakeholders constantly have different views about projects' results (Maylor, 2005). Second, "without disturbing the main work flow of the organization" because a project has to assist organisation's everyday operations and try to make them more efficient and effective. Finally, it should be completed "without changing the corporate culture" even though projects are "almost exclusively concerned with change - with knocking down the old and building up the new" (Baguley, 1995). A project manager's main responsibility is to make sure that he delivers change only where is necessary, otherwise he is doomed to find strong resistance from almost all organisational departments (Kerzner, 2001) which ultimately could lead to project failure.

As mentioned earlier, "success factors are those inputs to the management system that lead directly or indirectly to the success of the project or business" (Cooke-Davies, 2002,). Some project managers "intuitively and informally determine their own success factors. However, if these factors are not explicitly identified and recorded, they will not become part of formal project management reporting process nor they become part of the historical project data" (Rad & Levin, 2002).

Soft Skills

Numerous studies have shown that the core skills for any successful project manager are the ability to develop a successful 'high performing' team, and communicate effectively to influence key stakeholders. These are soft skills and very hard to achieve competence in. This reframing is important because well over 90% of project failures can be directly attributed to people issues, including headline disasters such as the

original Hubble Space Telescope launch and Challenger.

The simple fact is we can continue to underplay the importance of soft skills because they are not 'project specific' and continue to see well over 50% of project fail every year or we can recognise the core elements that characterise projects are totally useless without people and start giving stakeholder management and the soft skills implicit in successfully managing them the prominence needed in the body of knowledge needed to successfully manage projects (Atkinson, 1990).

Stakeholders

It is critical for a project manager to understand what the stakeholders consider as a successful project. In order to avoid any surprises at the end of the project, there is an urgent need to identify the different perspectives of what success means before the project goes live. It is also vital to remember that success criteria are the standards by which a project will be judged, while success factors are the facts that shape the result of projects. Success criteria have changed considerably through time and moved from the classic iron triangle's view of time, cost and quality to a broader framework which includes benefits for the organisation and user satisfaction. A common factor mentioned by many authors is senior management support for the project and it is recognized as one of the most important factors of all. In conclusion, early definition of success criteria can ensure an undisputed view of how the project will be judged and early detection of success factors will guarantee a safe path to deliver success.

Failure of Projects

Failure is often on multiple dimensions with projects coming in over budget, under scope and over time. It is a fact that some projects will fail despite the fact that the team did all the right things. That's no excuse for poor performance but it is a fact that makes this an exciting, challenging line of work. There are doubts about the value of the standards that are established from these "accreditation bodies" if projects continue to fail as they do. The value seems marginal at best. A certification is only valuable if it helps you do the thing you are accredited to do better, right? Someone enlighten me if I'm way off the mark.

Even though statistics may look gloomy, they are continually improving due to:

- Improved information sharing
- Self-Discipline through industry associations, such as PMI and IPMA
- Improved practices through project management certifications and continuing education requirements
- Increasing discipline among company leaders, focused on projects as implementing change and ensuring that project meet ROI thresholds

All of these reasons, along with your search for the best information, tools, and coaching means that project success rates will continue to increase - and we will all win.

Conclusion

The PMBOK Guide identifies nine Knowledge Areas on which a project manager should focus in order to successfully manage a project. This study reveals that the nine Knowledge Areas exert different levels of influence on a project's success. This finding is aligned with the Pareto principle (or "20/80 Rule"), which claims that 20% of all possible causes impact 80% of the result (Craft & Leake, 2002). The project planning Knowledge Areas that most influence project success results are Time, Risk, Scope, and Human Resources. The Knowledge Areas that have the lowest impact on project success are Cost and Procurement. Although these results do not suggest that some Knowledge Areas are not important, still a more focused approach that prioritizes potential investment in different project management processes is required.

References

A Guide to Project Management Body of Knowledge, 2004, 3rd Edition, Project Management Institute, USA

Atkinson, 1999, Project management: cost, time and quality, two best guesses and a phenomenon, it's time to accept other success criteria, International Journal of Project Management Vol. 17, No. 6, pp 337-342, [Electronic]

Baguley, 1995, Managing Successful Projects: A guide for every manager, Pitman Publishing, London UK, p8

Cleland & Ireland, 2002, p210, Project Management: Strategic Design and implementation, McGraw-Hill Professional, USA

Cleland & Ireland, 2004, Project Manager's Portable Handbook, 2nd Edition, McGraw-Hill, USA, page 210

Cooke-Davies, The "real" success factors on projects, International Journal of Project Management vol.20, pp. 185-190, [Electronic]

Cooper, R. G., & kleinschmidt, E. J. (1995). Benchmarking the firm's critical success factors in new product development. Journal of Production Innovation Management, 12, 374-391.

Duncan, 2004, Defining and Measuring Project Success, Project Management Partners, [Online], Available: http://www.pmpartners.com/resources/defmeas_success.html , [2005, Nov.4]

International Project Management Association (IPMA). (2006). International Project Management Association competence baseline, version 3. Nijkerk, the Netherlands: Author.

Kerzner, 2001, Project Management - A Systems Approach to Planning, Scheduling and Controlling, 7th Edition, John Wiley & Sons, New York

Kerzner, 2001, Strategic planning for project management using a project management maturity model, Wiley & Sons, New York, page 158

Lim & Mohamed, 1999, Criteria of project success: an exploratory re-examination, International Journal of Project Management Vol. 17, No. 4, pp. 243-248, [Electronic]

Maylor, 2005, Project Management, Third Edition with CD Microsoft Project, Prentice Hall, UK, p288

Rad & Levin, 2002, The Advanced Project Management Office, St.Lucie Press, USA, page 18

Morris, P.W. G. (2001). Updating the project management bodies of knowledge. Project Management Journal, 32(3), 21-30.

Office of Government Commerce (OGC). (2007). Managing successful programmes. Norwich, UK: The Stationery Office .

Project Management institute. (2008). A guide to the project management body of knowledge (PMBOK Guide)-Fourth edition. Newtown Square, PA: Author.

Thomsett, 2002, Radical Project Management, Prentice Hall, USA, page 16